IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Claim 1 (Currently Amended): A frequency adjustment method comprising:

receiving a signal having a first signal and a second signal, the first signal having a short cycle time and the second signal having a long cycle time longer than the short cycle time;

detecting a deviation of a frequency of ~~a~~ the first signal contained in ~~a~~ the received signal and ~~having a short cycle time~~ the received signal delayed by a first delay time corresponding to the short cycle time;

detecting a deviation of a frequency of ~~a~~ the second signal contained in the received signal and ~~having a cycle time longer than that of the first signal~~ the received signal delayed by a second delay time corresponding to the long cycle time;

determining a deviation of a frequency of the received signal on the basis of the detected deviation of the first signal and that of the second signal; and

adjusting the frequency of the received signal on the basis of the determined frequency deviation.

Claim 2 (Previously Presented): The method according to claim 1, further comprising:

selecting a region for defining a range of frequency deviation on the basis of the detection result of frequency deviation using the first signal; and

determining a frequency deviation within the range of the selected region on the basis of the detection result of frequency deviation using the second signal.

Claim 3 (Previously Presented): The method according to claim 1, further comprising:

selecting a region for defining a range of frequency deviation on the basis of the detection result of frequency deviation using the first signal; and

determining a frequency deviation within the range of the selected region on the basis of the result of synthetic combination of the detection result of frequency deviation using the second signal and the detection result of frequency deviation using the first signal.

Claim 4 (Previously Presented): The method according to claim 1, further comprising:

selecting a region for defining a range of frequency deviation on the basis of the detection result of frequency deviation using the first signal and a first past signal; and

determining a frequency deviation within the range of the selected region on the basis of the result of synthetic combination of the detection result of frequency deviation using the second signal and a second past signal and the detection result of frequency deviation using the first signal.

Claim 5 (Previously Presented): The method according to claim 1, further comprising:

selecting a region for defining a range of frequency deviation on the basis of the detection result of frequency deviation using the first signal and a first past signal of the transmission origin transmitting the first signal; and

determining a frequency deviation within the range of the selected region on the basis of the detection result of frequency deviation using the second signal and a second past signal of the transmission origin transmitting the second signal and the detection result of frequency deviation using the first signal.

Claim 6 (Previously Presented): The method according to claim 5, further comprising:

adjusting a frequency of a transmitter on the basis of the determined frequency deviation.

Claim 7 (Previously Presented): The method according to claim 1, wherein

the received signal is a signal formed by way of a modulation system using OFDM (orthogonal frequency division multiplexing).

Claim 8 (Currently Amended): A frequency adjustment device comprising:

a first detecting section which detects a deviation of a frequency of a first signal contained in a received signal and having a short cycle time;

a second detecting section which detects a deviation of a frequency of a second signal contained in the received signal and having a cycle time longer than that of the first signal;

a determining section which determines a deviation of a frequency of the received signal on the basis of the deviation of the first signal detected by the first detecting section and that of the second signal detected by the second detecting section; and

a frequency adjusting section which adjusts a frequency of the received signal on the basis of the frequency deviation determined by the determining section,

wherein the first detecting section comprising:

a first delay circuit which delays the received signal by a first delay time; and

a first correlation computing section which is supplied with an output signal of the first delay circuit and the received signal, computes a correlation of the signals and outputs the frequency deviation,

wherein the second detecting section comprising:

a second delay circuit which delays the received signal by a second delay time which is longer than the first delay time; and

a second correlation computing section which is supplied with the output signal of the second delay circuit and the received signal, computes a correlation of the signals and outputs the frequency deviation.

Claim 9-10 (Canceled).

Claim 11 (Previously Presented): The device according to claim 8, the determining section comprising:

a judging section which judges a region of phase on the basis of the frequency deviation supplied from the first detecting section; and

a computing section which computes a frequency deviation of the received signal on the basis of the region judged by the judging section and the frequency deviation supplied from the second detecting section.

Claim 12 (Previously Presented): The device according to claim 8, the determining section comprising:

a judging section which judges the region of phase on the basis of the frequency deviation supplied from the first detecting section and outputs the result of the determination; and

a computing section which is supplied with the frequency deviation supplied from the first detecting section, the frequency deviation supplied from the second detecting section and the result of the determination from the judging section and computes the average of the frequency deviation supplied from the first detecting section and the frequency deviation supplied from the second detecting section depending on the result of the determination from the judging section, thereby computing the frequency deviation of the received signal.

Claim 13 (Previously Presented): The device according to claim 8, wherein

the received signal is a signal formed by way of a modulation system using OFDM (orthogonal frequency division multiplexing).

Claim 14 (Currently Amended): A frequency adjustment device comprising:

a first detecting section which detects a deviation of a frequency of a first signal contained in a received signal and ~~having~~ the received signal delayed by a first delay time corresponding to a short cycle time;

a first memory section which stores a past frequency deviation of the first signal detected by the first detecting section;

a second detecting section which detects a deviation of a frequency of a second signal contained in the received signal and ~~having a cycle time longer than that of the first signal~~ the received signal delayed by a second delay time longer than the first delay time;

a second memory section which stores a past frequency deviation of the second signal detected by the second detecting section;

a determining section which determines a deviation of the frequency of the received signal on the basis of the frequency deviation of the first signal detected by the first detecting section, that of the second signal detected by the second detecting section, the past frequency deviations of the first past signals stored in the first memory section and the past frequency deviations of the second past signals stored in the second memory section; and

a first frequency adjusting section which adjusts the frequency of the received signal on the basis of the frequency deviation determined by the determining section.

Claim 15 (Previously Presented): The device according to claim 14, the determining section comprising:

a third memory section which stores a plurality of weight information for each of the frames including the current frame and the frames of the past;

a first computing section which computationally determines a first synthesized value of the frequency deviation information weighted by the weight information on the basis of the plurality of the frequency deviation of first signals stored in the first memory section and the weight information stored in the third memory section and a second synthesized value of the frequency deviation information weighted by the weight information on the basis of the plurality of the frequency deviation of second signals stored in the second memory section and the weight information stored in the third memory section;

a determining section which determines a region of phase according to the first synthesized value of the frequency deviation information supplied from the first computing section and outputs a determination result; and

a second computing section which computes a frequency deviation of the current frame on the basis of the second synthesized value of the frequency deviation information supplied from the first computing section and the determination result supplied from the determining section.

Claim 16 (Previously Presented): The device according to claim 15, further comprising:

a fourth memory section which is connected to the determining section and stores a plurality of frequency deviations of the transmission origin supplied from a media access layer.

Claim 17 (Previously Presented): The device according to claim 16, wherein

the determining section determines a frequency deviation of the received signal on the basis of the plurality of frequency deviations of the transmission origin stored in the fourth memory section, the frequency deviation of the current first signal supplied from the first detecting section, the frequency deviation of the current second signal supplied from the second detecting section, the frequency deviations of the first signals of the past supplied from the first memory section and the frequency deviations of the second signals of the past supplied from the second memory section.

Claim 18 (Previously Presented): The device according to claim 16, further comprising:

a second frequency adjusting section which is connected to the determining section and adjusts the frequency deviation of a transmitted signal according to the frequency deviation of the received signal determined by the determining section.